

miRCURY LNA™ miRNA Focus PCR Panels

Human Cell Development & Differentiation V2

Product Data Sheet

Cat. no. 339325 YAHS-203Y

For mature miRNA expression profiling using real-time PCR

Format	Suitable real-time cyclers	Plate	Cat. no.
A	Applied Biosystems® models 5700, 7000, 7300, 7500, 7700, 7900HT, ViiA™ 7 (96-well block); Bio-Rad® models iCycler®, iQ™5, MyiQ™, MyiQ2; Bio-Rad/MJ Research Chromo4™; Eppendorf® MasterCycler® ep realplex models 2, 2s, 4, 4s; Stratagene® models Mx3005P®, Mx3000P®; Takara: TP-800	96-well	YAHS-203YA
C	Applied Biosystems models 7500 (Fast block), 7900HT (Fast block), StepOnePlus™, ViiA 7 (Fast block)	96-well	YAHS-203YC
D	Bio-Rad CFX96™; Bio-Rad/MJ Research models DNA Engine Opticon®, DNA Engine Opticon 2; Stratagene Mx4000®	96-well	YAHS-203YD
E	Applied Biosystems® models 7900HT (384-well block), ViiA™ 7 (384-well block); Bio-Rad CFX384™	384-well	YAHS-203YE
F	Roche® LightCycler® 480 (96-well block)	96-well	YAHS-203YF
G	Roche® LightCycler® 480 (384-well block)	384-well	YAHS-203YG

Description

The Human Cell Differentiation & Development V2 miRCURY LNA™ miRNA Focus PCR Panel profiles the expression of 84 miRNAs differentially expressed during cellular differentiation and organism development. This array provides researchers with a convenient way to analyze the miRNAs most relevant to cell fate and cell lineage decisions. These miRNAs have been carefully selected based on results published in peer-reviewed journals that suggest a correlation with different stages of development from stem cells to terminal differentiation. The profiling results from this array can potentially serve as a useful molecular marker for specific stem cells and/or specific stem cell differentiation processes. The results can also potentially help identify miRNAs associated with the function of specific cells or tissue types. A set of controls present on this array enables data analysis using the $\Delta\Delta CT$ method of relative quantification, assessment of reverse transcription performance, and assessment of PCR performance. Using SYBR Green-based real-time PCR, the expression of a focused panel of miRNAs related to development and differentiation can be easily and reliably analyzed with this miRCURY LNA™ miRNA Focus PCR Panel

For further details, consult the *miRCURY LNA™ miRCURY LNA™ miRNA Focus PCR Panels Handbook*.

Array Layout

	1	2	3	4	5	6	7	8	9	10	11	12
A	hsa-miR-106b-5p	hsa-let-7e-5p	hsa-miR-20b-5p	hsa-miR-125a-5p	hsa-miR-125b-5p	hsa-miR-122-5p	hsa-miR-155-5p	hsa-miR-126-3p	hsa-miR-22-3p	hsa-miR-92a-3p	hsa-miR-141-3p	hsa-miR-378a-3p
B	hsa-miR-10a-5p	hsa-miR-182-5p	hsa-miR-302a-3p	hsa-miR-93-5p	hsa-miR-1-3p	hsa-miR-181a-5p	hsa-miR-146b-5p	hsa-let-7f-5p	hsa-miR-196a-5p	hsa-miR-301a-3p	hsa-miR-488-3p	hsa-miR-215-5p
C	hsa-miR-24-3p	hsa-miR-192-5p	hsa-miR-18a-5p	hsa-miR-100-5p	hsa-miR-9-5p	hsa-miR-137-3p	hsa-miR-15a-5p	hsa-miR-134-5p	hsa-miR-103a-3p	hsa-miR-424-5p	hsa-miR-20a-5p	hsa-let-7i-5p
D	hsa-miR-222-3p	hsa-miR-99a-5p	hsa-miR-206	hsa-miR-195-5p	hsa-miR-132-3p	hsa-miR-16-5p	hsa-miR-23b-3p	hsa-miR-214-3p	hsa-miR-21-5p	hsa-miR-18b-5p	hsa-miR-345-5p	hsa-let-7c-5p
E	hsa-miR-26a-5p	hsa-miR-101-3p	hsa-miR-17-5p	hsa-miR-129-5p	hsa-miR-96-5p	hsa-miR-183-5p	hsa-miR-210-3p	hsa-miR-223-3p	hsa-let-7a-5p	hsa-miR-518b	hsa-miR-194-5p	hsa-miR-218-5p
F	hsa-let-7d-5p	hsa-miR-205-5p	hsa-miR-10b-5p	hsa-miR-185-5p	hsa-miR-133b	hsa-miR-520g-3p	hsa-miR-33a-5p	hsa-miR-124-3p	hsa-miR-208a-3p	hsa-miR-142-5p	hsa-miR-150-5p	hsa-miR-128-3p
G	hsa-miR-15b-5p	hsa-miR-130a-3p	hsa-miR-127-5p	hsa-miR-498-5p	hsa-let-7b-5p	hsa-miR-302c-3p	hsa-miR-219a-5p	hsa-let-7g-5p	hsa-miR-375-3p	hsa-miR-7-5p	hsa-miR-146a-5p	hsa-miR-142-3p
H	cel-miR-39-3p	cel-miR-39-3p	SNORD44 (hsa)	SNORD388 (hsa)	SNORD49A (hsa)	U6 snRNA (v2)	UniSp2	UniSp4	UniSp5	UniSp6	UniSp3	UniSp3

miRNA Table

Well	miRNA ID	Accession #	Assay Catalog #	Well	miRNA ID	Accession #	Assay Catalog #
A01	hsa-miR-106b-5p	MIMAT0000680	YP00205884	E01	hsa-miR-26a-5p	MIMAT0000082	YP00206023
A02	hsa-letf-7e-5p	MIMAT0000066	YP00205711	E02	hsa-miR-101-3p	MIMAT0000099	YP00204786
A03	hsa-miR-20b-5p	MIMAT0001413	YP00204755	E03	hsa-miR-17-5p	MIMAT0000070	YP02119304
A04	hsa-miR-125a-5p	MIMAT0000443	YP00204339	E04	hsa-miR-129-5p	MIMAT0000242	YP00204534
A05	hsa-miR-125b-5p	MIMAT0000423	YP00205713	E05	hsa-miR-96-5p	MIMAT0000095	YP00204417
A06	hsa-miR-122-5p	MIMAT0000421	YP00205664	E06	hsa-miR-183-5p	MIMAT0000261	YP00206030
A07	hsa-miR-155-5p	MIMAT0000646	YP02119311	E07	hsa-miR-210-3p	MIMAT0000267	YP00204333
A08	hsa-miR-126-3p	MIMAT0000445	YP00204227	E08	hsa-miR-223-3p	MIMAT0000280	YP00205986
A09	hsa-miR-22-3p	MIMAT0000077	YP00204606	E09	hsa-letf-7a-5p	MIMAT0000062	YP00205727
A10	hsa-miR-92a-3p	MIMAT0000092	YP00204258	E10	hsa-miR-518b	MIMAT0002844	YP00204405
A11	hsa-miR-141-3p	MIMAT0000432	YP00204504	E11	hsa-miR-194-5p	MIMAT0000460	YP00204080
A12	hsa-miR-378a-3p	MIMAT0000732	YP00205946	E12	hsa-miR-218-5p	MIMAT0000275	YP00206034
B01	hsa-miR-10a-5p	MIMAT0000253	YP00204778	F01	hsa-letf-7d-5p	MIMAT0000065	YP00204124
B02	hsa-miR-182-5p	MIMAT0000259	YP00206070	F02	hsa-miR-205-5p	MIMAT0000266	YP00204487
B03	hsa-miR-302a-3p	MIMAT0000684	YP00206059	F03	hsa-miR-10b-5p	MIMAT0000254	YP00205637
B04	hsa-miR-93-5p	MIMAT0000093	YP00204715	F04	hsa-miR-185-5p	MIMAT0000455	YP00206037
B05	hsa-miR-1-3p	MIMAT0000416	YP00204344	F05	hsa-miR-133b	MIMAT0000770	YP00206058
B06	hsa-miR-181a-5p	MIMAT0000256	YP00206081	F06	hsa-miR-520g-3p	MIMAT0002858	YP00204055
B07	hsa-miR-146b-5p	MIMAT0002809	YP02119310	F07	hsa-miR-33a-5p	MIMAT0000091	YP00205690
B08	hsa-letf-7f-5p	MIMAT0000067	YP00204359	F08	hsa-miR-124-3p	MIMAT0000422	YP00206026
B09	hsa-miR-196a-5p	MIMAT0000226	YP00204386	F09	hsa-miR-208a-3p	MIMAT0000241	YP00205619
B10	hsa-miR-301a-3p	MIMAT0000688	YP00205601	F10	hsa-miR-142-5p	MIMAT0000433	YP00204722
B11	hsa-miR-488-3p	MIMAT0004763	YP00204469	F11	hsa-miR-150-5p	MIMAT0000451	YP00204660
B12	hsa-miR-215-5p	MIMAT0000272	YP00204598	F12	hsa-miR-128-3p	MIMAT0000424	YP00205995
C01	hsa-miR-24-3p	MIMAT0000080	YP00204260	G01	hsa-miR-15b-5p	MIMAT0000417	YP00204243
C02	hsa-miR-192-5p	MIMAT0000222	YP00204099	G02	hsa-miR-130a-3p	MIMAT0000425	YP00204658
C03	hsa-miR-18a-5p	MIMAT0000072	YP00204207	G03	hsa-miR-127-5p	MIMAT0004604	YP00204161
C04	hsa-miR-100-5p	MIMAT0000098	YP00205689	G04	hsa-miR-498-5p	MIMAT0002824	YP00204150
C05	hsa-miR-9-5p	MIMAT0000441	YP00204513	G05	hsa-letf-7b-5p	MIMAT0000063	YP00204750
C06	hsa-miR-137-3p	MIMAT0000429	YP00206062	G06	hsa-miR-302c-3p	MIMAT0000717	YP00204403
C07	hsa-miR-15a-5p	MIMAT0000068	YP00204066	G07	hsa-miR-219a-5p	MIMAT0000276	YP00204780
C08	hsa-miR-134-5p	MIMAT0000447	YP00205989	G08	hsa-letf-7g-5p	MIMAT0000414	YP00204565
C09	hsa-miR-103a-3p	MIMAT0000101	YP00204063	G09	hsa-miR-375-3p	MIMAT0000728	YP00204362
C10	hsa-miR-424-5p	MIMAT0001341	YP00204736	G10	hsa-miR-7-5p	MIMAT0000252	YP02119317
C11	hsa-miR-20a-5p	MIMAT0000075	YP00204292	G11	hsa-miR-146a-5p	MIMAT0000449	YP00204688
C12	hsa-letf-7i-5p	MIMAT0000415	YP00204394	G12	hsa-miR-142-3p	MIMAT0000434	YP00204291
D01	hsa-miR-222-3p	MIMAT0000279	YP00204551	H01	cel-miR-39-3p	MIMAT0000010	YP00203952
D02	hsa-miR-99a-5p	MIMAT0000097	YP00204521	H02	cel-miR-39-3p	MIMAT0000010	YP00203952
D03	hsa-miR-206	MIMAT0000462	YP00206073	H03	SNORD44 (hsa)	N/A	YP00203902
D04	hsa-miR-195-5p	MIMAT0000461	YP00205869	H04	SNORD388 (hsa)	N/A	YP00203901
D05	hsa-miR-132-3p	MIMAT0000426	YP00206035	H05	SNORD49A (hsa)	N/A	YP00203904
D06	hsa-miR-16-5p	MIMAT0000069	YP00205702	H06	U6 snRNA (v2)	N/A	YP02119464
D07	hsa-miR-23b-3p	MIMAT0000418	YP02119314	H07	UniSp2	N/A	YP00203950
D08	hsa-miR-214-3p	MIMAT0000271	YP00204510	H08	UniSp4	N/A	YP00203953
D09	hsa-miR-21-5p	MIMAT0000076	YP00204230	H09	UniSp5	N/A	YP00203955
D10	hsa-miR-18b-5p	MIMAT0001412	YP00204084	H10	UniSp6	N/A	YP00203954
D11	hsa-miR-345-5p	MIMAT0000772	YP00206006	H11	UniSP3	N/A	YP02119288
D12	hsa-letf-7c-5p	MIMAT0000064	YP00204767	H12	UniSP3	N/A	YP02119288

Functional Groupings

Pluripotency: hsa-let-7a-5p, hsa-let-7b-5p, hsa-let-7c-5p, hsa-let-7d-5p, hsa-let-7e-5p, hsa-let-7g-5p, hsa-miR-101-3p, hsa-miR-106b-5p, hsa-miR-125b-5p, hsa-miR-130a-3p, hsa-miR-133b, hsa-miR-141-3p, hsa-miR-15a-5p, hsa-miR-17-5p, hsa-miR-182-5p, hsa-miR-183-5p, hsa-miR-18a-5p, hsa-miR-18b-5p, hsa-miR-205-5p, hsa-miR-20a-5p, hsa-miR-20b-5p, hsa-miR-21-5p, hsa-miR-214-3p, hsa-miR-22-3p, hsa-miR-222-3p, hsa-miR-23b-3p, hsa-miR-24-3p, hsa-miR-302a-3p, hsa-miR-302c-3p, hsa-miR-345-5p, hsa-miR-424-5p, hsa-miR-498-5p, hsa-miR-518b, hsa-miR-520g-3p.

Early Development

Embryoid Bodies: hsa-miR-132-3p, hsa-miR-181a-5p, hsa-miR-9-5p.

Definitive Endoderm: hsa-miR-205-5p, hsa-miR-375-3p.

Ectoderm-Based

Neurological Development: hsa-let-7b-5p, hsa-miR-103a-3p, hsa-miR-106b-5p, hsa-miR-10b-5p, hsa-miR-124-3p, hsa-miR-125b-5p, hsa-miR-130a-3p, hsa-miR-132-3p, hsa-miR-134-5p, hsa-miR-137-3p, hsa-miR-16-5p, hsa-miR-181a-5p, hsa-miR-182-5p, hsa-miR-183-5p, hsa-miR-20a-5p, hsa-miR-210-3p, hsa-miR-219a-5p, hsa-miR-22-3p, hsa-miR-23b-3p, hsa-miR-24-3p, hsa-miR-26a-5p, hsa-miR-302a-3p, hsa-miR-302c-3p, hsa-miR-7-5p, hsa-miR-9-5p, hsa-miR-96-5p.

Eye Development: hsa-miR-130a-3p, hsa-miR-196a-5p, hsa-miR-219a-5p, hsa-miR-23b-3p, hsa-miR-96-5p.

Epidermal Differentiation: hsa-let-7b-5p, hsa-miR-205-5p, hsa-miR-210-3p, hsa-miR-23b-3p, hsa-miR-26a-5p.

Inner Ear Development: hsa-miR-182-5p, hsa-miR-183-5p, hsa-miR-96-5p.

Mesoderm-Based (Blood Cells)

Hematopoiesis: hsa-let-7e-5p, hsa-miR-125a-5p, hsa-miR-142-3p, hsa-miR-223-3p.

T Cell Development: hsa-let-7a-5p, hsa-let-7f-5p, hsa-miR-106b-5p, hsa-miR-142-5p, hsa-miR-146b-5p, hsa-miR-150-5p, hsa-miR-15a-5p, hsa-miR-15b-5p, hsa-miR-16-5p, hsa-miR-181a-5p, hsa-miR-20a-5p, hsa-miR-222-3p, hsa-miR-26a-5p.

Erythropoiesis: hsa-let-7a-5p, hsa-let-7b-5p, hsa-let-7c-5p, hsa-let-7d-5p, hsa-let-7f-5p, hsa-let-7g-5p, hsa-let-7i-5p, hsa-miR-126-3p, hsa-miR-128-3p, hsa-miR-137-3p, hsa-miR-155-5p, hsa-miR-15b-5p, hsa-miR-16-5p, hsa-miR-17-5p, hsa-miR-181a-5p, hsa-miR-182-5p, hsa-miR-185-5p, hsa-miR-206, hsa-miR-21-5p, hsa-miR-22-3p, hsa-miR-222-3p, hsa-miR-24-3p, hsa-miR-26a-5p, hsa-miR-96-5p.

Lymphopoiesis: hsa-let-7b-5p, hsa-miR-125b-5p, hsa-miR-128-3p, hsa-miR-16-5p, hsa-miR-181a-5p, hsa-miR-21-5p, hsa-miR-24-3p.

Megakaryopoiesis: hsa-miR-106b-5p, hsa-miR-10a-5p, hsa-miR-10b-5p, hsa-miR-122-5p, hsa-miR-126-3p, hsa-miR-127-5p, hsa-miR-129-5p, hsa-miR-134-5p, hsa-miR-146a-5p, hsa-miR-150-5p, hsa-miR-155-5p, hsa-miR-17-5p, hsa-miR-18a-5p, hsa-miR-192-5p, hsa-miR-20a-5p, hsa-miR-20b-5p, hsa-miR-21-5p, hsa-miR-22-3p, hsa-miR-301a-3p, hsa-miR-33a-5p, hsa-miR-378a-3p, hsa-miR-92a-3p, hsa-miR-93-5p.

Monocyte Differentiation: hsa-miR-155-5p, hsa-miR-222-3p, hsa-miR-424-5p.

Myelopoiesis: hsa-miR-103a-3p, hsa-miR-128-3p, hsa-miR-17-5p, hsa-miR-181a-5p, hsa-miR-24-3p.

Mesoderm-Based

Angiogenesis: hsa-miR-126-3p, hsa-miR-130a-3p, hsa-miR-218-5p, hsa-miR-222-3p, hsa-miR-92a-3p.

Myogenesis: hsa-miR-1-3p, hsa-miR-125b-5p, hsa-miR-206, hsa-miR-26a-5p.

Osteogenesis: hsa-miR-141-3p, hsa-miR-15b-5p, hsa-miR-424-5p.

Adipogenesis: hsa-let-7b-5p, hsa-let-7c-5p, hsa-let-7e-5p, hsa-miR-100-5p, hsa-miR-101-3p, hsa-miR-103a-3p, hsa-miR-10b-5p, hsa-miR-146b-5p, hsa-miR-155-5p, hsa-miR-182-5p, hsa-miR-192-5p, hsa-miR-194-5p, hsa-miR-196a-5p, hsa-miR-21-5p, hsa-miR-210-3p, hsa-miR-214-3p, hsa-miR-22-3p, hsa-miR-24-3p, hsa-miR-498-5p, hsa-miR-96-5p, hsa-miR-99a-5p.

Chondrogenesis: hsa-let-7f-5p, hsa-miR-1-3p, hsa-miR-132-3p, hsa-miR-181a-5p, hsa-miR-196a-5p, hsa-miR-96-5p, hsa-miR-99a-5p.

Heart Development: hsa-miR-1-3p, hsa-miR-208a-3p, hsa-miR-488-3p.

Endoderm-Based

Liver Development: hsa-let-7a-5p, hsa-let-7b-5p, hsa-let-7c-5p, hsa-miR-10a-5p, hsa-miR-122-5p, hsa-miR-125b-5p, hsa-miR-192-5p, hsa-miR-21-5p, hsa-miR-22-3p, hsa-miR-23b-3p, hsa-miR-92a-3p, hsa-miR-99a-5p.

Pancreatic Development: hsa-miR-15a-5p, hsa-miR-15b-5p, hsa-miR-16-5p, hsa-miR-195-5p, hsa-miR-214-3p, hsa-miR-375-3p, hsa-miR-7-5p, hsa-miR-9-5p.

Intestinal Development: hsa-let-7d-5p, hsa-let-7e-5p, hsa-miR-103a-3p, hsa-miR-106b-5p, hsa-miR-125b-5p, hsa-miR-126-3p, hsa-miR-130a-3p, hsa-miR-141-3p, hsa-miR-146b-5p, hsa-miR-17-5p, hsa-miR-192-5p, hsa-miR-194-5p, hsa-miR-21-5p, hsa-miR-215-5p, hsa-miR-301a-3p, hsa-miR-424-5p.

Ordering Information

Product	Contents	Cat. no.
miRCURY LNA miRNA Focus PCR Panels	miRCURY LNA miRNA PCR Panels for application-based miRNome profiling, available in 96-well or 384-well format; for SYBR® Green-based detection	339325
miRCURY LNA miRNA miRNome PCR Panels	miRCURY LNA miRNA PCR Panels for PCR-based miRNome profiling, available in 384-well format; for SYBR® Green-based detection	339322
miRCURY LNA miRNA QC PCR Panel	miRCURY LNA miRNA PCR Panel of quality control assays, available in 96-well or 384-well format; for SYBR® Green-based detection	339331
miRCURY LNA miRNA Custom PCR Panels	8 identical, ready-to-use 96- or 384-well plates; each well contains primers sufficient for one 10 µl reaction; for SYBR® Green-based detection	339330
miRCURY LNA Custom PCR Panel Additional Plate	Additional miRCURY LNA Custom PCR Panel plates; set of 4 plates; only available in addition to the base plates ordered through the core product (cat. no. 339330)	339332
miRCURY LNA miRNA PCR Assays	Contains forward and reverse primers for 200 SYBR® Green-based, real-time qPCR reactions, 166 EvaGreen-based digital PCR reactions for Nanoplate 8.5k or 50 EvaGreen-based digital PCR reactions for Nanoplate 26k	339306
miRCURY LNA miRNA Probe PCR Assays	Complete premixed assays containing LNA-enhanced target-specific forward primer and probe. For 200 reactions.	339350
miRCURY LNA miRNA Custom Probe PCR Assays	Custom-designed, target-specific forward primer and probe for any user-defined miRNA target. Complete premixed assay for 200 reactions.	339351

Related Products

Product	Contents	Cat. no.
miRCURY LNA RT Kit	For 8–64 cDNA synthesis reactions: 5x RT SYBR Green Reaction Buffer, 5x RT Probe Reaction Buffer, 10x RT Enzyme Mix, UniSp6, RNA Spike-in template, RNase-Free Water	339340
RNA Spike-In Kit, For RT	Contains the UniSp2, UniSp4, and UniSp5 RNA Spike-in Template Mix and the cel-miR-39-3p RNA Spike-in Template	339390
miRCURY LNA SYBR® Green PCR Kits (200)	For 200 reactions: 2X miRCURY SYBR Green Master Mix, RNase-Free Water	339345
miRCURY LNA SYBR® Green PCR Kits (600)	For 600 reactions: 2X miRCURY SYBR Green Master Mix, RNase-Free Water	339346
miRCURY LNA SYBR® Green PCR Kits (4000)	For 4000 reactions: 2X miRCURY SYBR Green Master Mix, RNase-Free Water	339347
miRCURY LNA Probe PCR Kit (200)	For 200 reactions: 2X QuantiNova Probe Master Mix, 10X miRCURY Probe Univ. Primer, Rox Reference Dye, RNase-Free Water	339371
miRCURY LNA Probe PCR Kit (800)	For 800 reactions: 2X QuantiNova Probe Master Mix, 10X miRCURY Probe Univ. Primer, Rox Reference Dye, RNase-Free Water	339372
miRCURY LNA Probe PCR Kit (4000)	For 4000 reactions: 2X QuantiNova Probe Master Mix, 10X miRCURY Probe Univ. Primer, Rox Reference Dye, RNase-Free Water	339373
miRCURY LNA miRNA PCR Starter Kit	Two miRCURY LNA PCR Assays of your choice, spike-in control Assay (UniSp6), one candidate endogenous control assay (miR-103-3p) and all reagents for 20 reverse transcription reactions and 100 PCR amplifications; for SYBR® Green-based qPCR detection	339320

Important

The miRCURY LNA™ miRNA PCR Panels are Ready-to-Use and designed for optimal performance with the miRCURY LNA RT Kit and the miRCURY LNA SYBR® Green PCR Kit. The performance of the primer sets will be affected when used in combination with less than optimal reagents. Use the miRCURY LNA miRNA PCR Panel Handbook for experiment setup. RNA work requires specific handling and precautions should be taken to prevent RNase contamination and degradation of the RNA sample and reagents.

Shipping and storage

The Ready-to-Use miRCURY LNA miRNA PCR Panels are shipped at room temperature and can be stored at 4°C for at least 6 months. For long term storage, it is recommended to place the panels at -20°C. Under these conditions, the LNA PCR primers are stable for at least 6 months after receipt.

Intended use

miRCURY LNA miRNA PCR Assays are intended for molecular biology applications. This product is not intended for the diagnosis, prevention or treatment of a disease.

Safety information

When working with chemicals, always wear a suitable lab coat, disposable gloves, and protective goggles. For more information, please consult the appropriate safety data sheets (SDSs). These are available online in convenient and compact PDF format at **www.qiagen.com/safety** where you can find, view and print the SDS for each QIAGEN kit and kit component.

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